

## **AMENDED CLAIMS**

- 1. An isolated human protein or an analogue or variant thereof capable of participating in the human PTCH/SHH pathway during embryonic development and/or carcinogenesis, which is essentially comprised of SEQ ID NO: 1.
- 72. A nucleic acid encoding a protein according to claim 1.
- 3. An isolated variant of the nucleic acid according to claim 2.
- 4. An isolated nucleic acid capable of specifically hybridising to a nucleic acid according to claim 2 or 3.
- 5. A protein according to claim 1 or a nucleic acid according to any one of claims 2-4 for use as a medicament.
- 6. Use of a protein according to claim 1 or a nucleic acid according to any one of claims 2-4 in the manufacture of a medicament for the treatment of a condition involving tumors, such as BSS.
- 7. A method of <u>in vitro</u> or <u>in vivo</u> diagnosis, wherein a protein according to claim 1 or a nucleic acid according to any one of claims 2-4 is used.
- 8. A method of screening wherein a library of suitable candidate compounds is screened for modified drugs using a protein according to claim 1 as a lead compound.
- 9. A method of synthesis of a modified drug, wherein a protein according to claim 1 is used.
- 10. A modified drug identified by the method according to claim 8 or synthesized according to claim 9.
- 11. A vector comprising a nucleic acid according to any one of claim 2-4.
- 12. A recombinant cell comprising a vector according to claim 11.
- 13. An antibody which specifically binds to a protein according to claim 1.
- 14. A recombinant cell expressing an antibody according to claim 13.
- 15. A kit for the detection of a human PTCH2 gene or polypeptide comprising in a container a molecule selected from the group consisting of a nucleic acid according to any one of claims 2-4, a protein according to claim 1 or an antibody according to claim 13.
- 16. Use of a nucleic acid according to any one of claims 2-4 in gene therapy.



17. Use of nucleic acid according to any one of claims 2-4 as a probe, a primer or a diagnostic reagent.

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